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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/727,135	12/02/2003	Mark Allen Freskos	50325-0845 (Seq. No. 8504)	5336
29989 7590 04/18/2008 HICKMAN PALERMO TRUONG & BECKER, LLP 2055 GATEWAY PLACE SUITE 550 SAN JOSE, CA 95110			EXAMINER SHIN, KYUNG H	
			ART UNIT 2143	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/727,135	<b>Applicant(s)</b> FRESKOS ET AL.	
	<b>Examiner</b> KYUNG H. SHIN	<b>Art Unit</b> 2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/28/2008 has been entered.
2. This action is responding to application papers filed 12/2/2003. Claims **1 - 20** are pending. Claims **1, 4 - 6, 9 - 11, 14 - 16, 19, 20** have been amended. Independent claims are **1, 4, 5, 6, 9, 10, 11, 14, 15, 16, 19, 20**.

### ***Responses to Remarks***

3. Applicant's arguments with respect to claims 1-20 have been considered but some are moot in view of the new ground(s) of rejection, and the remainder of applicant's arguments was not persuasive.

3.1 Applicant argues that the referenced prior art does not disclose, "receiving ... a non-XML request that conforms to a table-based data model". (Remarks Pages 14-15)

The term "non-XML request" is not disclosed within the specification or the original claims. (see 112 rejection)

Shafer discloses client applications using the defined table-based module. As per specification the table-based model is the model supported by client applications where parameters are expressed in name/value pairs. Shafer discloses a non-XML request

such as a configuration or operational request. The request is encoded into an XML formatted request using XML tags. (Shafer col 2, ll 10-17: clients submit configuration requests, operational requests or non-XML requests; clients encodes request with XML tags; col 5, ll 45-51: router clients encode configuration requests and operational requests or non-XML requests with extensible XML markup language generating an XML formatted request)

3.2 The examiner has considered the applicant's remarks concerning an end-to-end approach that provides for developing and maintaining network device management applications. The approach includes an XML-based development environment for network device management applications that uses Management Data API (MDA) schemas that define a hierarchical data model for components supported by a network device. The approach includes mechanisms for automatically generating XML requests that conform to a hierarchical data model from requests that conform to a table-based data model. The approach also includes mechanisms for automatically extracting data from XML replies and conforming to the table-based data model.

After an additional analysis of the applicant's invention, remarks, and a search of the available prior art, it was determined that the current set of prior art consisting of **Shafer (7,072,946)** and **Swedor (7,313,608)** discloses applicant's invention.

#### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

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art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims **1, 4 - 6, 9 - 11, 14 - 16, 19, 20** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

There is no disclosure for the term, "non-XML request", within the specification or within the original claims. There is disclosure somewhat for a table-based data model and a hierarchical data model. The specification indicates that the table-based model is associated with the client application and the hierarchical model is associated with the router. Since there is no disclosure for the term, "non-XML request", there is no disclosure for the amended claim limitations, "receiving, at a client from a client application, a non XML request" and "generate an XML request from the non-XML request".

Shafer discloses the ability to receive a configuration request or operational request as a client application within a network management environment. In addition, Shafer discloses the ability to encode requests with extensible markup language tags such as XML tags to generate an XML extensible markup language entity. (Shafer col 2, ll 10-17: clients submit configuration requests, operational requests or non-XML requests; clients can encode requests with XML tags; col 2, ll 21-34; col 6, ll 24-27: software, implementation means, machine readable media)

***Claim Rejections - 35 USC § 101***

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. The claimed invention is directed to non-statutory subject matter. Claims **6 - 10** are directed towards machine readable medium for carrying instructions that are executed. The specification in paragraph [0058] states that: "The term "**computer-readable medium**" as used herein refers to any medium that participates in providing instructions to processor 704 for execution. Such a medium may take many forms, including but not limited to, non-volatile media, volatile media, and **transmission media**." and states: "**Transmission media** can also take the form of **acoustic** or light **waves**, such as those generated during **radio wave** and **infrared** data communications".

In addition, the specification in paragraph [0059] states that: "Common forms of **computer-readable media** include, for example, a floppy disk, a flexible disk, hard disk, magnetic tape, or any other magnetic medium, a CD-ROM, any other optical medium, punch cards, paper tape, any other physical medium with patterns of holes, a RAM, a PROM, and EPROM, a FLASH-EPROM, any other memory chip or cartridge, a **carrier wave** as described hereinafter, or any other medium from which a computer can read." and in paragraph [0064] states that: "Processor 704 may execute the code as it is received, and/or stored in storage device 710, or other non-volatile storage for later execution. In this manner, computer system 700 may **obtain application code** in the form of a **carrier wave**."

The usage of a carrier wave or radio wave as a type of computer readable medium constitutes non-statutory subject matter. Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims **1 - 20** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Shafer et al.** (US Patent No. **7,072,946**) in view of **Swedor et al.** (US Patent No. **7,313,608**).

**Regarding Claims 1, 6, 11, 16**, Shafer discloses a computer-implemented method, machine readable medium, apparatus for processing XML requests on a router, the method comprising the machine executed steps of:

- a) receiving, at a client from a client application, a non-XML request that conforms to a table-based data model to perform an operation on management data maintained by the router; (Shafer col 2, ll 10-17: clients submit configuration requests, operational requests or non-XML requests; clients can encode requests with XML tags; col 2, ll 21-34; col 6, ll 24-27: software, implementation means, machine readable media)
- c) receiving, at the router from the client, the XML request to perform the operation on the management data maintained in a database by the router; (Shafer col 1, ll

49-55; col 2, ll 10-13: management request received at router, XML formatted request)

- d) parsing the XML request to identify one or more XML elements contained in the XML request; (Shafer col 2, ll 15-23: parse XML request)
- e) generating one or more data requests based upon the one or more XML elements contained in the XML request; (Shafer col 2, ll 59-65: convert request to device command) and
- d) processing the one or more data requests against the management data maintained in the database by the router. (Shafer col 2, ll 5-9; col 2, ll 25-28: process request based on XML request)
- e) storing updated management data at the router without implementing the updated management data, (Shafer col 10, ll 29-34: uncommitted (unimplemented) changes stored and accessible; col 2, ll 21-34; col 6, ll 24-27: software, implementation means, computer readable media)
- f) wherein the one or more data requests comprise a request for a confirmation that updated management data have been implemented by the router in response to a request to commit changes to the management data on the router. (Shafer col 11, ll 35-37: configuration change command completion confirmation; col 2, ll 21-34; col 6, ll 24-27: software, implementation means, computer readable media)

Shafer discloses a non-XML operation request (Shafer col 2, ll 10-17: clients submit configuration requests, operational requests; clients can encode requests with XML tags and generating an XML markup language request; col 5, ll 45-51: router clients

encode configuration requests and operational requests with extensible markup language such as XML).

And, Swedor discloses:

- b) generating an XML request from the non-XML request; (Swedor col 9, l 57 - col 10, l 3: client computer encodes the request by constructing an XML encoded document corresponding to the request)

It would have been obvious to one of ordinary skill in the art to modify Shafer to generate an XML request from a non-XML request as taught by Swedor. One of ordinary skill in the art would have been motivated to employ the teachings of Swedor in order to more efficiently access, configure and control a network device using documents written in a markup language such as the Extensible Markup Language (XML). (Swedor col. 1, lines 56-59: “... *The present invention relates to an apparatus and method for more efficiently accessing, configuring and controlling a network device using documents written in a markup language such as the Extensible Markup Language (XML). ...*”)

**Regarding Claims 2, 7, 12**, Shafer discloses the method, machine-readable medium, apparatus as recited in Claim 1, wherein the step of

- a) parsing the XML request to identify one or more XML elements contained in the XML request includes identifying one or more XML tags contained in the XML request (Shafer col 2, ll 21-23; col 2, ll 59-65: parse XML request, utilize XML tags) and the step of

- b) generating the one or more data requests based upon the one or more XML elements contained in the XML request includes generating the one or more data requests based upon the one or more XML tags contained in the XML request.  
(Shafer col 2, ll 15-20: generate based on XML tags)

**Regarding Claims 3, 13,** Shafer discloses the method, apparatus as recited in Claim 1, further comprising the machine implemented step of generating an XML response based upon processing the one or more data requests against the management data maintained in the database by the router. (Shafer col 1, ll 49-55; col 3, ll 58-66: response replies received in XML format)

**Regarding Claims 4, 9, 14, 19,** Shafer discloses a computer implemented method, machine-readable medium, apparatus for processing XML requests on a router, the method comprising the machine executed steps of:

- a) receiving, at a client from a client application, a non-XML request that conforms to a table-based data model to perform an operation on management data maintained by the router; (Shafer col 2, ll 10-17: clients submit configuration requests, operational requests or non-XML requests; clients can encode requests with XML tags; col 2, ll 21-34; col 6, ll 24-27: software, implementation means, machine readable media)
- c) receiving, at the router from the client, the XML request to perform the operation on the management data maintained in a database by the router; (Shafer col 2, ll

21-28; col 2, line 30-34: XML request, management information in database)

- d) parsing the XML request to identify one or more XML tags contained in the XML request; (Shafer col 2, ll 15-20; col 2, ll 21-23: parse XML message)
- e) identifying one or more management data items in the management data that are associated with the one or more XML tags; (Shafer col 2, ll 15-20: identify information associated with XML tags)
- f) generating one or more operations to be performed on the one or more management data items, wherein a first operation includes receiving updated management data from the client, and wherein a second operation includes implementing the updated management data on the router in response to a request to commit changes to the management data on the router; (Shafer col 2, ll 59-65: convert to device command; col 10, ll 29-34: uncommitted (unimplemented) changes processed, stored and are accessible; col 11, ll 35-37: configuration change command completion confirmation); col 2, ll 21-34; col 6, ll 24-27: software, implementation means, computer readable media)
- g) processing the one or more operations against the one or more management data items maintained in the database; (Shafer col 2, ll 21-28; col 2, ll 30-34: process requested operation based on associated data in database) and
- h) generating an XML response and sending the XML response to the client, wherein the XML response contains a confirmation that the first operation and the second operation occurred. (Shafer col 3, ll 58-66; col 2, ll 21-23: request processed, XML response generated; col 11, ll 35-37: configuration change

command completion confirmation; col 2, ll 21-34; col 6, ll 24-27: software, implementation means, computer readable media)

Shafer discloses a non-XML operation request (Shafer col 2, ll 10-17: clients submit configuration requests, operational requests; clients can encode requests with XML tags and generating an XML markup language request; col 5, ll 45-51: router clients encode configuration requests and operational requests with extensible markup language such as XML).

And, Swedor discloses:

b) generating an XML request from the non-XML request; (Swedor col 9, l 57 - col 10, l 3: client computer encodes the request by constructing an XML encoded document corresponding to the request)

It would have been obvious to one of ordinary skill in the art to modify Shafer to generate an XML request from a non-XML request as taught by Swedor. One of ordinary skill in the art would have been motivated to employ the teachings of Swedor in order to more efficiently access, configure and control a network device using documents written in a markup language such as the Extensible Markup Language (XML). (Swedor col. 1, lines 56-59)

**Regarding Claims 5, 10, 15, 20**, Shafer discloses a method, machine-readable medium, apparatus for generating schema data used by a router to process XML requests, the method comprising the machine implemented steps of

a) receiving schema definition data that defines both a hierarchical data model used

by the router and an XML interface used by client to generate XML requests for the router; (Shafer col 3, ll 20-29: schema definition information utilized for XML request/response interface; col 2, ll 21-34; col 6, ll 24-27: software, implementation means, machine readable media)

- b) receiving, at a client from a client application, a non-XML request that conforms to a table-based data model to perform an operation on management data maintained by the router; (Shafer col 2, ll 10-17: clients submit configuration requests, operational requests or non-XML requests; clients can encode requests with XML tags)

wherein the XML request comprises at least one of:

- d) a request to perform one or more operations on management data maintained in a database by the router, wherein a first operation includes receiving updated management data from the client, and wherein a second operation includes implementing the updated management data on the router; (Shafer col 10, ll 29-34: uncommitted (unimplemented) changes processed, stored and are accessible; col 2, ll 21-34; col 6, ll 24-27: software, implementation means, computer readable media) and
- e) a data request, wherein the data request comprises a request for a confirmation that updated management data has been implemented by the router in response to a request to commit changes to management data on the router; (Shafer col 11, ll 35-37: configuration change command completion confirmation; col 2, ll 21-34; col 6, ll 24-27: software,

- implementation means, computer readable media)
- f) processing the schema definition data to generate processed schema definition data; (Shafer col 3, ll 41-44: process data utilizing schema information) and
  - g) storing the processed schema definition data on the router. (Shafer col 3, ll 25-29; col 8, ll 30-32: router database, configuration information storage)

Shafer discloses a non-XML operation request (Shafer col 2, ll 10-17: clients submit configuration requests, operational requests; clients can encode requests with XML tags and generating an XML markup language request; col 5, ll 45-51: router clients encode configuration requests and operational requests with extensible markup language such as XML).

And, Swedor discloses:

- c) generating an XML request from the non-XML request, (Swedor col 9, l 57 - col 10, l 3: client computer encodes the request by constructing an XML encoded document corresponding to the request)

It would have been obvious to one of ordinary skill in the art to modify Shafer to generate an XML request from a non-XML request as taught by Swedor. One of ordinary skill in the art would have been motivated to employ the teachings of Swedor in order to more efficiently access, configure and control a network device using documents written in a markup language such as the Extensible Markup Language (XML). (Swedor col. 1, lines 56-59)

**Regarding Claim 8**, Shafer discloses the machine readable medium as recited in Claim

6, further comprising one or more additional instructions which, when executed by the one or more processors, cause the one or more processors to perform the step of generating an XML response based upon processing the one or more data requests against the management data maintained in the database by the router. (Shafer col 6, ll 24-27: processor(s); col 3, ll 58-66: request processed, XML response generated)

**Regarding Claim 17**, Shafer discloses the apparatus as recited in Claim 16, further comprising means for identifying one or more XML tags contained in the XML request and means for generating the one or more data requests based upon the one or more XML tags contained in the XML request. (Shafer col 2, ll 15-20: XML tags utilized to parse request and generate commands)

**Regarding Claim 18**, Shafer discloses the apparatus as recited in Claim 16, further comprising means for generating an XML response based upon processing the one or more data requests against the management data maintained in the database by the router. (Shafer col 3, ll 41-44; col 3, ll 58-66: XML response generated)

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kyung H. Shin whose telephone number is (571) 272-3920. The examiner can normally be reached on 9:30 am - 6 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

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supervisor, David A. Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kyung H Shin  
Patent Examiner  
Art Unit 2143

KHS  
4/12/2008

/Nathan J. Flynn/

Supervisory Patent Examiner, Art Unit 2154